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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/980,748	04/11/2002	Shlomo Ben-Haim	IMP031.228770	7537
54042 7590 05/21/2007 WOLF, BLOCK, SHORR AND SOLIS-COHEN LLP 250 PARK AVENUE 10TH FLOOR NEW YORK, NY 10177			EXAMINER HOLMES, REX R	
			ART UNIT 3762	PAPER NUMBER
			MAIL DATE 05/21/2007	DELIVERY MODE PAPER

**Please find below and/or attached an Office communication concerning this application or proceeding.**

The time period for reply, if any, is set in the attached communication.

## Office Action Summary

Application No.

09/980,748

Applicant(s)

BEN-HAIM ET AL.

Examiner

Rex Holmes

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3762

-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 30 January 2007.
- 2a) ☒ This action is **FINAL**. 2b) ☐ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-8, 10-15, 30-53, 55-58 and 72-85 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-8, 10-15, 30-53, 55-58, 72-85 is/are rejected.
- 7) ☐ Claim(s) \_\_\_\_\_ is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).  
Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

### Priority under 35 U.S.C. § 119

- 12) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☐ All b) ☐ Some \* c) ☐ None of:
- ☐ Certified copies of the priority documents have been received.
  - ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.
  - ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

\* See the attached detailed Office action for a list of the certified copies not received.

### Attachment(s)

- |  |   |
|--|---|
| 1) <input type="checkbox"/> Notice of References Cited (PTO-892)   | 4) <input type="checkbox"/> Interview Summary (PTO-413)<br>Paper No(s)/Mail Date. _____ |
| 2) <input type="checkbox"/> Notice of Draftsperson's Patent Drawing Review (PTO-948)   | 5) <input type="checkbox"/> Notice of Informal Patent Application                       |
| 3) <input checked="" type="checkbox"/> Information Disclosure Statement(s) (PTO/SB/08)<br>Paper No(s)/Mail Date <u>1/30/07</u> . | 6) <input type="checkbox"/> Other: _____  |

## DETAILED ACTION

### *Claim Rejections - 35 USC § 102*

1. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(b) the invention was patented or described in a printed publication in this or a foreign country or in public use or on sale in this country, more than one year prior to the date of application for patent in the United States.

2. Claims 1-8, 10-15, 30-53, 55-58, 72-85 are rejected under 35 U.S.C. 102(b) as being anticipated by KenKnight (U.S. Pat. 5,797,967).

3. Regarding Claims 1-8, 10-15, 30-53, 55-58, 72-85, KenKnight discloses that pacing bursts are used to control fibrillation (Col. 10, ll. 57-67; Col. 11, ll. 1-11), it is further disclosed that during pacing type stimulation 1-10 V are used (Col. 5, ll. 41-45), it is further discussed that the amperage used is 10mA and the duration of 40 pulses was about 100-140ms (Col. 10, ll. 57-67 & Col. 11, ll. 1-11). Based on the voltages, amperage, the number of shocks and the duration KenKnight discloses a method and apparatus of defibrillating a heart at a rate of 10Hz for at least 100ms (~100-140ms) while supplying total energy that is less than 1 joule having an amplitude less than 50mA and a peak power that is less than 10 W. KenKnight further discloses that the method and apparatus comprises a step for or a controller for sensing the activity in the heart and then respond to it by pulsing in bursts (Column 1, Lines 42-45; Column 11, Lines 60-66). KenKnight also discloses the use of fencing signals to inhibit and control activation fronts (Column 11, Lines 12-34).

KenKnight discloses further discloses that the pulses are applied with different parameters to a variety of sites interspersed within the heart (Column 8, Lines 65-67; Figure 8, 14a, 14b, 13). It is also disclosed that the controller is programmed to determine the activation interval after the first shock and then continued application of pulses is computed and applied. It is further disclosed that after each defibrillation pulse the application of the first defibrillation-level shock, a new and longer cycle length is used to control the critical tissue volume. KenKnight also discloses that the pulses occur near the peak of ventricular depolarization, thus causing depolarization (Column 1, Lines 25-27). It is further stated that the selected cardiac tissue may be ventricular or atrial tissue (Column 4, Lines 4-9).

It is noted that local control of the heart along with activation front control described in Column 11, Lines 12-34 describes fencing signals without explicitly calling them fencing signals. It is further noted that atrial depolarization cued to the start of ventricular depolarization causes depolarization of substantially all excitable contractile tissue of the heart.

### ***Response to Arguments***

4. Applicant's arguments filed 1/30/07 have been fully considered but they are not persuasive. Applicant argues that KenKnight does not disclose supplying energy that is less than 1 joule. KenKnight discloses that pacing bursts are used to control fibrillation (Col. 10, ll. 57-67; Col. 11, ll. 1-11), it is further disclosed that during pacing type stimulation 1-10 V are used (Col. 5, ll. 41-45), it is further discussed that the amperage used is 10mA and the duration of 40 pulses was about 100-140ms (Col. 10, ll. 57-67 &

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Col. 11, ll. 1-11). Based on the voltages, amperage, the number of shocks and the duration KenKnight discloses a method and apparatus of defibrillating a heart at a rate of at least 10Hz (~400 Hz) for at least 100ms (~100-140ms) while supplying total energy that is less than 1 joule (~0.06-0.6 J) having an amplitude less than 50mA (10mA) and a peak power that is less than 10 W (~0.01-0.1 W).

5. Applicant's arguments with respect to claims 9-10, 23-24, 36-37, 54-55, 67-68 and 79-80 have been considered but are moot in view of the new ground(s) of rejection.

6. Applicant's amendments to claims and specification filed 1/30/07, with respect to claims 6, 8, 19-20, 22, 32-33, 35, 49-50, 52, 62-63, 65, 74-75 and 77 and the abstract have been entered. The objection of the specification and the rejection of the claims under 35 USC 112 have been withdrawn.

### ***Conclusion***

7. Applicant's amendment necessitated the new ground(s) of rejection presented in this Office action. Accordingly, **THIS ACTION IS MADE FINAL**. See MPEP § 706.07(a). Applicant is reminded of the extension of time policy as set forth in 37 CFR 1.136(a).

A shortened statutory period for reply to this final action is set to expire THREE MONTHS from the mailing date of this action. In the event a first reply is filed within TWO MONTHS of the mailing date of this final action and the advisory action is not mailed until after the end of the THREE-MONTH shortened statutory period, then the shortened statutory period will expire on the date the advisory action is mailed, and any extension fee pursuant to 37 CFR 1.136(a) will be calculated from the mailing date of

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the advisory action. In no event, however, will the statutory period for reply expire later than SIX MONTHS from the date of this final action.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Rex Holmes whose telephone number is 571-272-8827. The examiner can normally be reached on M-F 8:00 - 5:00.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Angela Sykes can be reached on 571-272-4955. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free). If you would like assistance from a USPTO Customer Service Representative or access to the automated information system, call 800-786-9199 (IN USA OR CANADA) or 571-272-1000.

  
Rex Holmes

  
George Evanisko

Primary Examiner

5/14/7